SHEET INDEX		
NO.	DESCRIPTION	
1	TITLE SHEET	
2	PLAN AND PROFILE	_
3	DRAINAGE AREA MAP AND STORM DRAIN PROFILE	
4	GRADING, SEDIMENT CONTROL AND STREET TREE PLAN	
5	DETAILS	
6	SEDIMENT CONTROL NOTES AND DETAILS	

ROADWAY AND STORM DRAIN

RELOCATED CEMETERY LANE 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

GENERAL NOTES

- 1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR ROAD CONSTRUCTION.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- 3. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES, WHERE DIRECTED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- 4. CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES AT LEAST THREE DAYS BEFORE STARTING WORK

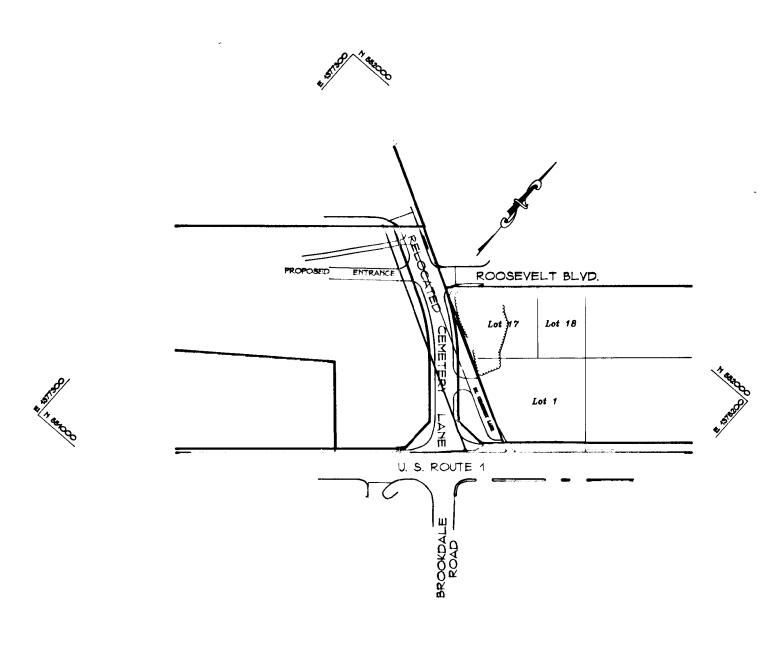
SHOWN ON THESE DRAWINGS. MISS UTILITY BELL TELEPHONE SYSTEM * LONG DISTANCE CABLE DIVISION BALTIMORE GAS AND ELECTRIC HOWARD COUNTY BUREAU OF UTILITIES HOWARD COUNTY CONSTRUCTION INSPECTION SURVEY DIVISION

1-800-257-7777 393-3649 393--3553 OR 3554 539-8000 EXT. 691 313-2366 313-1870 313-2417/2418

- 5. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- 6. ALL STREET CURB RETURNS SHALL HAVE 25.0' RADII UNLESS OTHERWISE NOTED.
- 7. STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
- 8. INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1991 EDITION.
- 9. PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- 10. DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY INTERMEDIATE ARTERIALS DESIGNED FOR 50 M.P.H., ALL LOCAL STREETS DESIGNED FOR 30 M.P.H.
- 11. ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM 1929.
- 12. ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM 95% OF MAXIMUM OBTAINABLE DENSITY DETERMINED BY MARSHALL PROCTOR.
- 13. ALL PIPE ELEVATIONS SHOWN ARE INVERT
- 14. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.

WF-95-72

- 15. SEE ALSO HOWARD COUNTY FILE # SDP-95-73 SDP-96-19 ZB--955M&R
- 16. ACCESS PERMIT REQUIRED FROM S.H.A.
- *17. BELL ATLANTIC IS TO COMPLETE ENCASEMENT OF EXISTING CONDUIT BENEATH PROPOSED RELOCATED CEMETERY LANE PRIOR TO CONSTRUCTION. BEFORE COMMENCING CONSTRUCTION THE CONTRACTOR SHALL CONTACT MR. JOHN LESLIE ON (410-393-6185) OR MR. MIKE FERGUSON (410-393-6094). TO VERIFY THAT THE ENCASEMENT IS COMPLETED.
- 18. CONTRACTOR IS TO CALL SHA. DISTRICT 7 OFFICE PRIOR TO START OF WORK. ALL CONSTRUCTION ALONG ROUTE 1 WILL BE COORDINATED WITH MR. DON FISHER OF THAT OFFICE. (301) 674-2595



LOCATION MAP

SCALE: 1'' = 200'



VICINITY MAP

SCALE: 1'' = 2000'

BENCH MARK DESCRIPTIONS

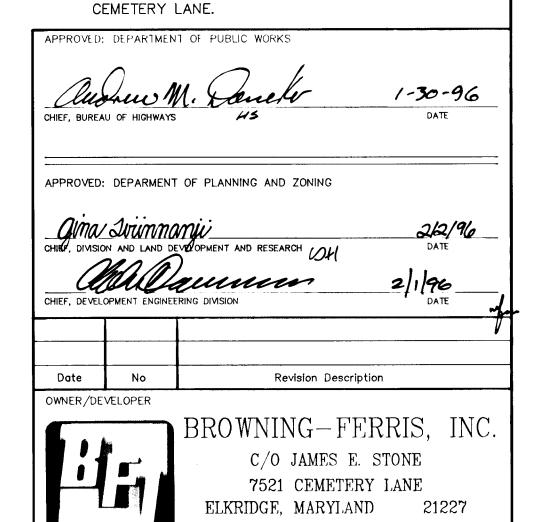
S.H.A. SURVEY CONTROL POINT #3 EL. 210.611 STAMPED CONCRETE MONUMENT NORTH WEST SIDE OF U.S. ROUTE 1 AND SOUTH ENTRANCE TO LUSKINS.

N 551,109.640 E 1,377,461.667

S.H.A. SURVEY CONTROL POINT # 13 EL. 209.665 STAMPED CONCRETE MONUMENT NORTH EAST SIDE OF U.S. ROUTE 1 AND 303'± EAST OF Ç OF BROOKDALE ROAD.

E 1,378,176.940

INSTALL GALVANIZED POLE AND GRAY FIXTURE (250 WATT-CUTOFF) WITH BREAKAWAY BASE. STA. 9+50, 45' RIGHT OF BASE LINE



TAX MAP No. 43 PARCEL No. 599 & 624 ELECTION DIST. 1 12/14/95

PHOENIX ENGINEERING, INC. CONSULTING ENGINEERS 817 MAIDEN CHOICE LANE, SUITE 300 BALTIMORE, MARYLAND 21228 (410) 247-8833 FAX 247-9397

RELOCATED CEMETERY LANE AT U.S. ROUTE 1

TITLE SHEET

Approved DEC, 1995

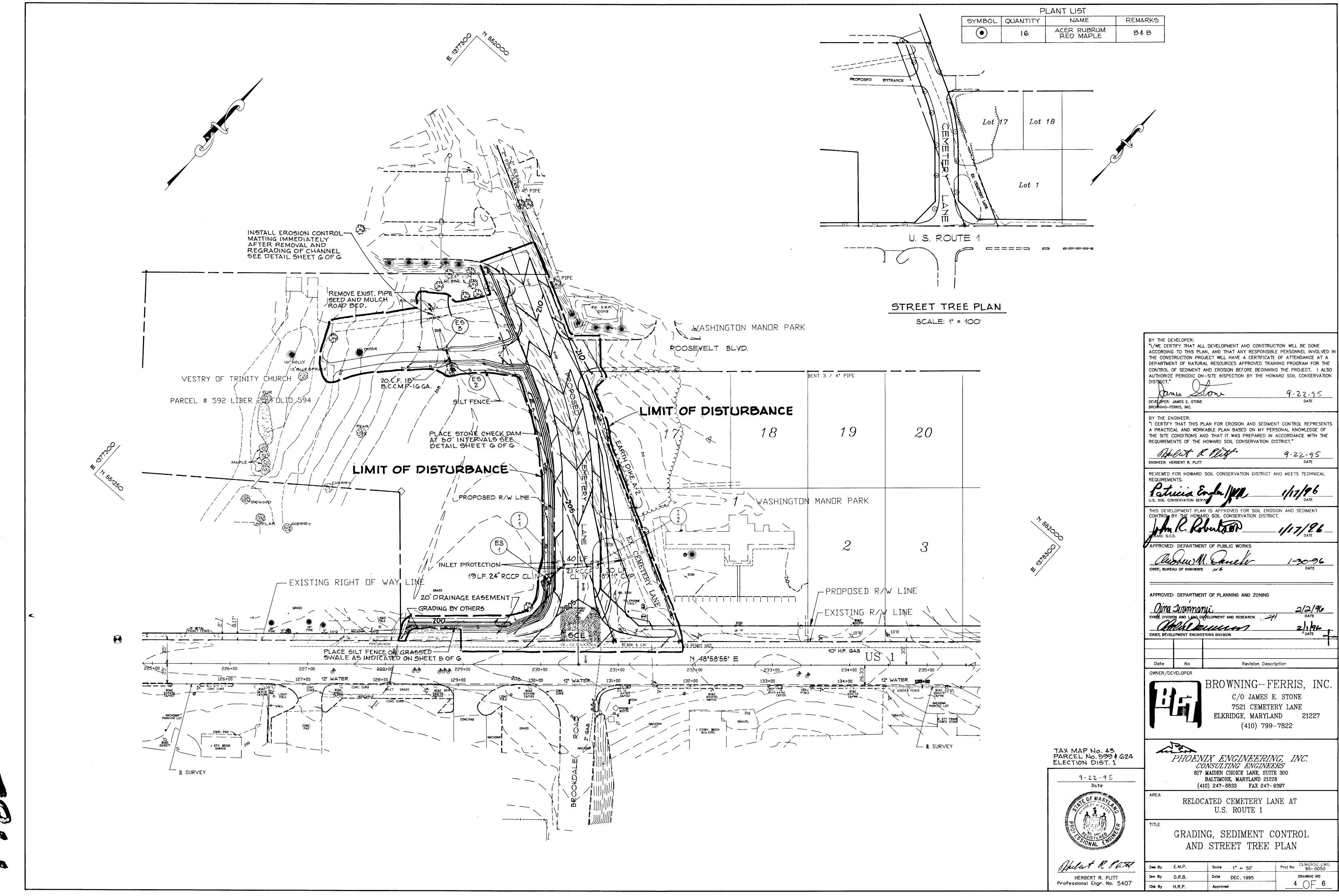
Proj No 95- 0050 Date DEC. 1995 DRAWING NO $1 \bigcirc F 6$

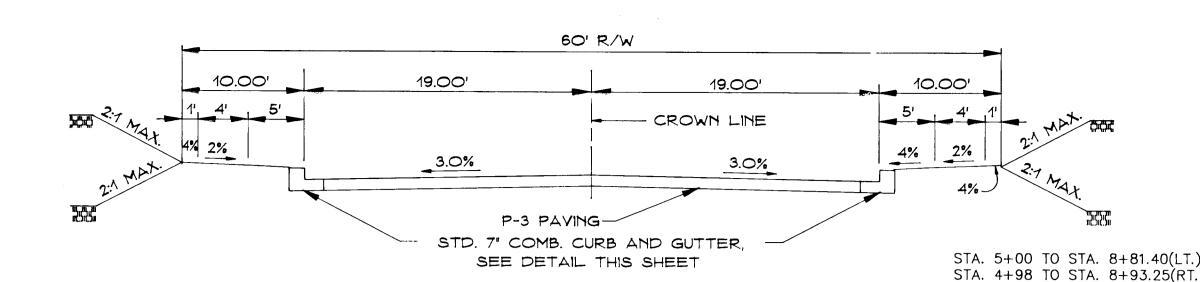
HERBERT R. PLITT Professional Engr. No. 5407 (410) 799-7822

Chk By H.R.P.

Chk By H.R.P.

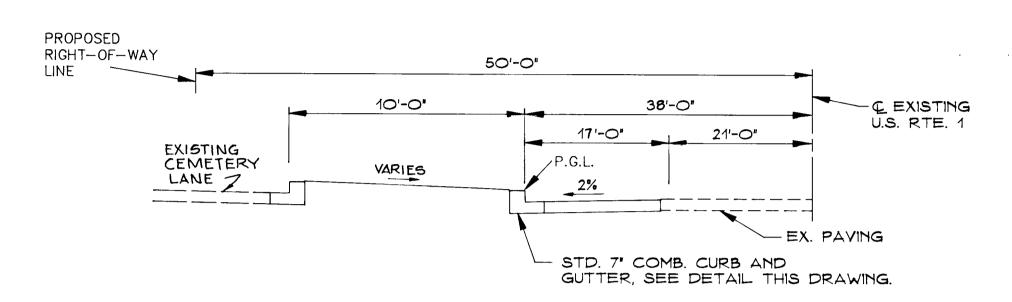
Approved





ZONING-COMMERCIAL DESIGN SPEED-30 M.P.H. TYPICAL SECTION RELOCATED CEMETERY LANE NOT TO SCALE

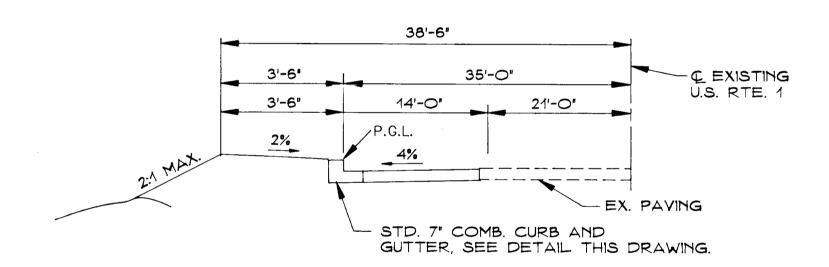
CLASSIFICATION-LOCAL STREET



TYPICAL SECTION US. RTE. 1

NOT TO SCALE

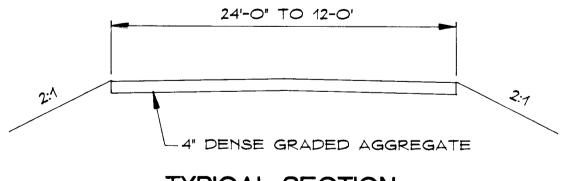
STA. 231+50 CLASSIFICATION-INTERMEDIATE ARTERIAL DESIGN SPEED-50 M.P.H. ZONING COMMERCIAL



TYPICAL SECTION US. RTE. 1

NOT TO SCALE

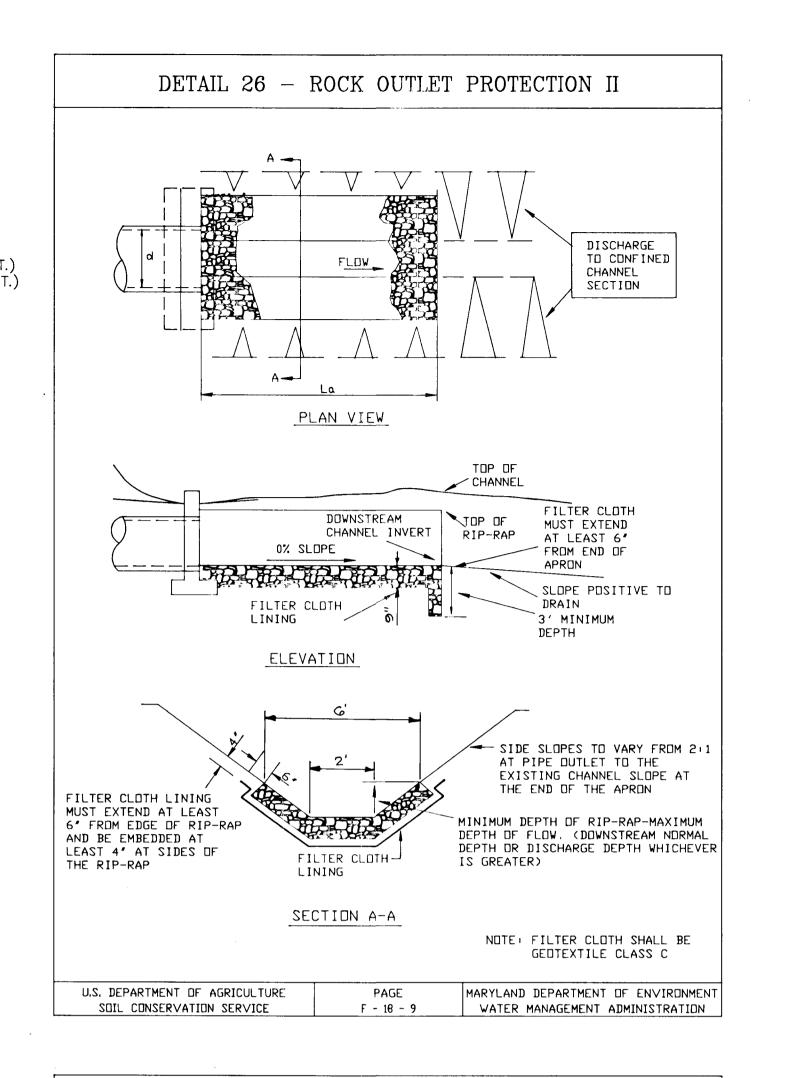
STA. 224+50 TO STA. 229+ CLASSIFICATION—INTERMEDIATE ARTERIAL DESIGN SPEED-50 M.P.H. ZONING-COMMERCIAL



TYPICAL SECTION

NOT TO SCALE

ENTRANCE ROAD TO VESTRY





Construction Specifications

1. The subgrade for the filter, rip—rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.

2. The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.

3. Geotextile shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile. All overlaps whether for repairs or for joining two pieces of geotextile shall be a minimum of one foot.

4. Stone for the rip-rap or gabion outlets may be placed by equipment. They shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile. Hand placement will be required to the extent necessary to prevent damage to the permanent works.

5. The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.

F - 18 - 9A

10'

EROSION CONTROL CONTROL PLAN AND FINAL

NOTE: OUTLET PROTECTION IS FOR BOTH SOIL AND

STORM WATER MANAGEMENT PLAN.

18"

PIPE SIZE L'La' L'W' D50 D

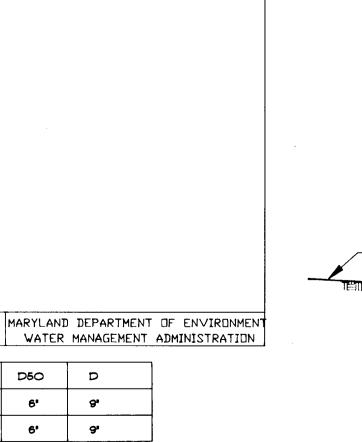
10' 6'

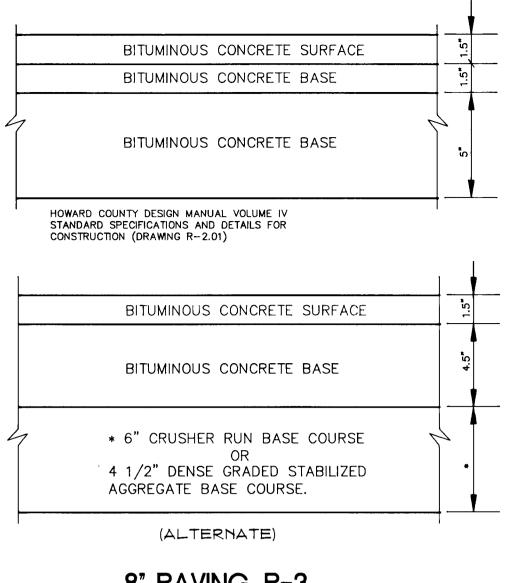
ଡ'

6"

U.S. DEPARTMENT OF AGRICULTURE

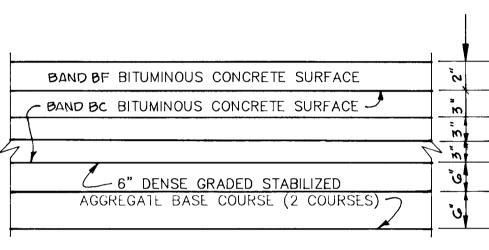
SOIL CONSERVATION SERVICE





8" PAVING, P-3 NOT TO SCALE

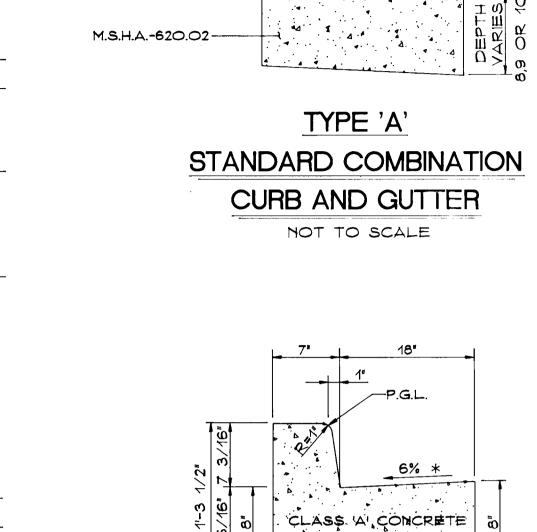
RELOCATED CEMETERY LANE



PAVEMENT SECTION SHOWN APPLIES TO INTERMEDIATE ARTERIAL (U.S. RTE. 1) AND TO STA. 9+55 RELOCATED CEMETERY LANE.

M.S.H.A. PAVING SECTION

NOT TO SCALE



1/2" : 1'

NOTE: SLOPE GUTTER PAN 1/2" PER FOOT TOWARD FLOW

-SLOPE OF

PAVEMENT

LINE ON ALL ROADWAYS.

STANDARD 7" COMBINATION

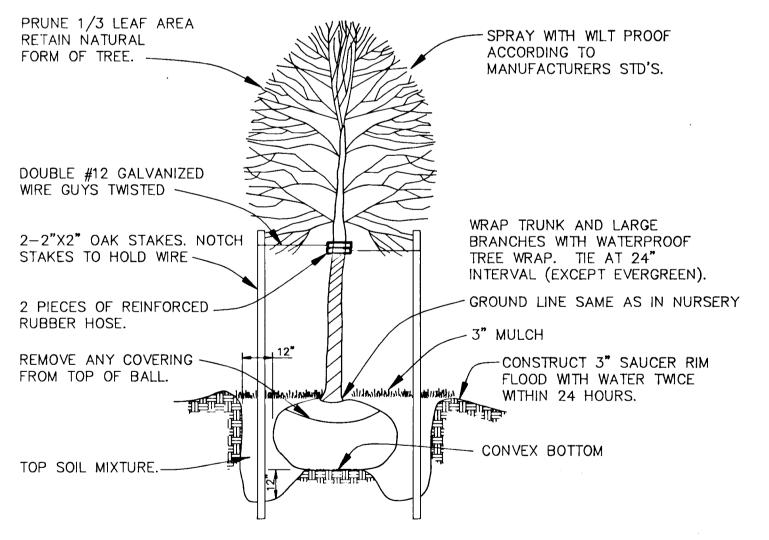
HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-3.01)

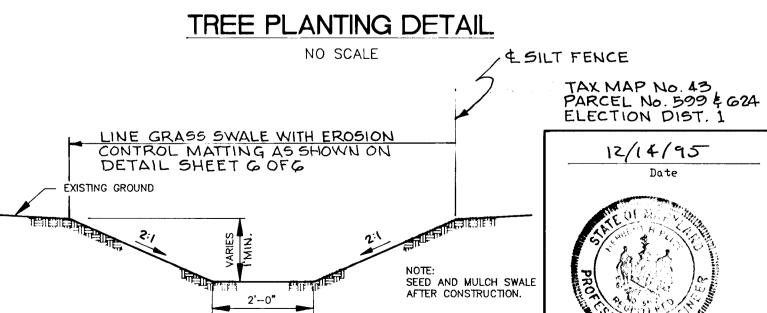
GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE

CURB AND GUTTER

NOT TO SCALE RELOCATED CEMETERY LANE

APPROVED: DEPARTMENT OF PUBLIC WORKS.





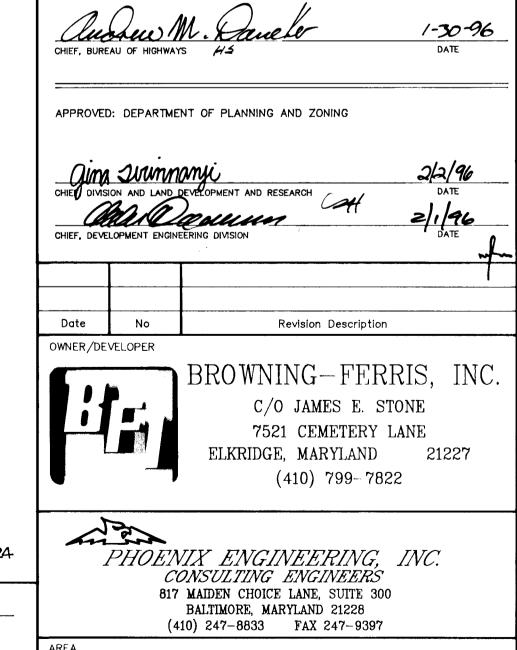
Delut R Plots

HERBERT R. PLITT

Professional Engr. No. 5407

GRASSED SWALE

NOT TO SCALE



RELOCATED CEMETERY LANE AT U.S. ROUTE 1

DETAILS

Scale 1" = 50'

Date DEC. 1995

Om By D.R.B.

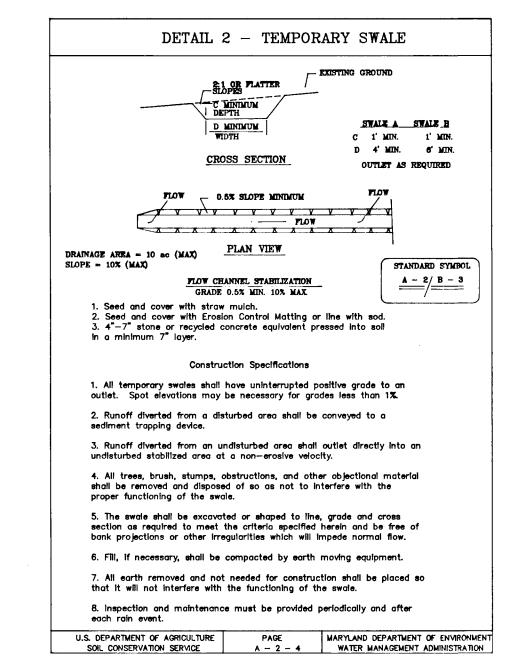
Chk By H.R.P.

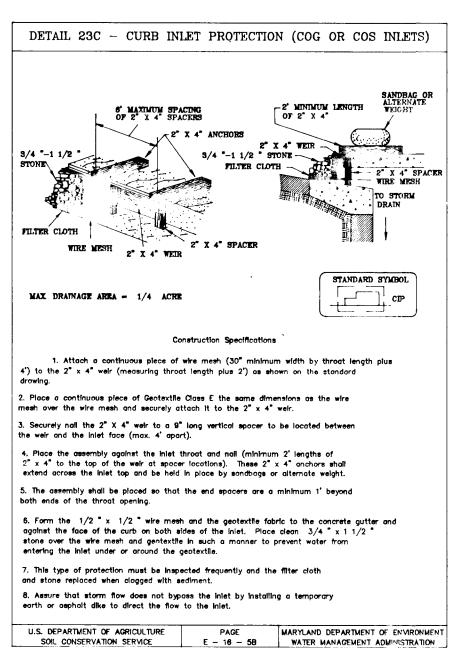


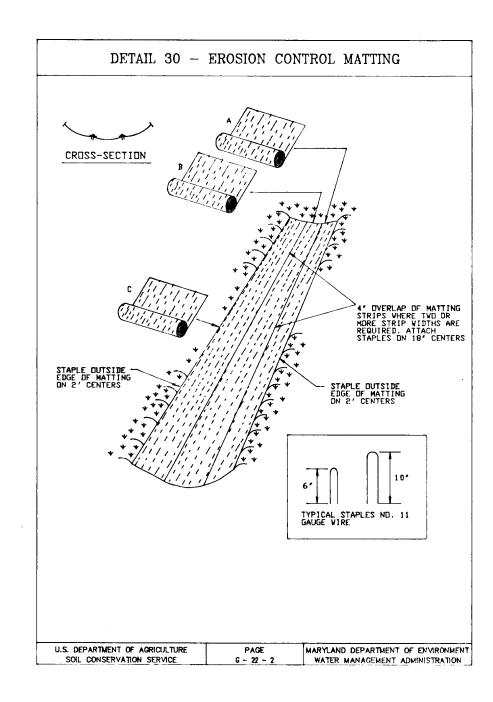
Proj No 95-0050

DRAWING NO

5 OF 6







EROSION CONTROL MATTING

Construction Specifications

1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6' in depth. Backfill the trench and tamp firmly to

conform to the channel cross-section. Secure with a row of staples about 4' down slope from the trench. Spacing between staples is 6'.

2. Staple the 4" overlap in the channel center using an 18" spacing

3. Before stapling the outer edges of the matting, make sure the

4. Staples shall be placed 2' apart with 4 rows for each strip, 2

5. Where one roll of matting ends and another begins, the end of

6. The discharge end of the matting liner should be similarly

the top strip shall overlap the upper end of the lower strip by 4°,

shiplap fashion. Reinforce the overlap with a double row of staples

Note: If flow will enter from the edge of the matting them the area

MARYLAND DEPARTMENT OF ENVIRONMENT

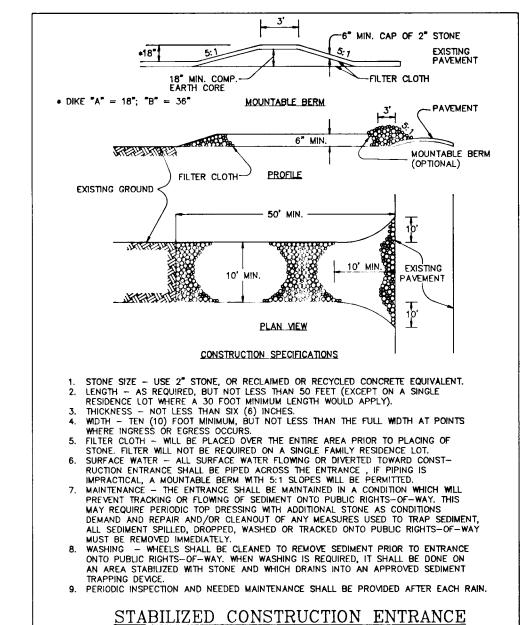
G - 22 - 2A WATER MANAGEMENT ADMINISTRATION

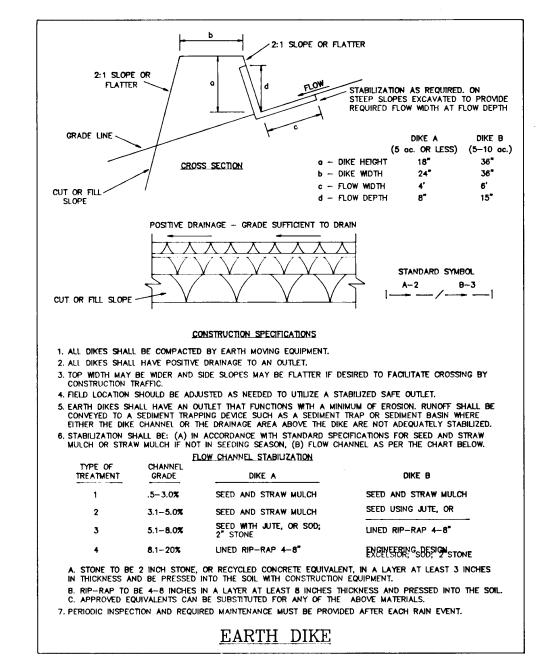
matting is smooth and in firm contact with the soil.

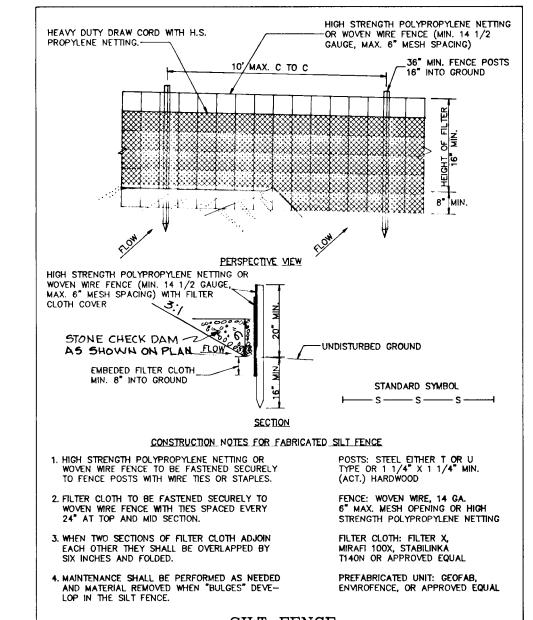
spaced 6' apart in a staggered pattern on either side.

outer rows, and 2 alternating rows down the center

secured with 2 double rows of staples.







SEDIMENT CONTROL NOTES

- 1) A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (992-2437)
- 2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND
- 3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE. PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. B) 14 DAYS AS TO ALL OTHER
- 4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1. CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM
- 5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52.) TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTAB-
- 6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 7) SITE ANALYSIS: TOTAL AREA OF SITE AREA DISTURBED 0.91 ACRES 2.08 ACRES AREA TO BE ROOFED OR PAVED

 AREA TO BE VEGETATIVELY STABILIZED

 1.25 ACRES

 0.83 ACRES AREA TO BE ROOFED OR PAVED 1,750CU. YDS.

 Borrow will be from a site
 with an active grading permit OFFSITE WASTE/BORROW AREA LOCATION
- 8) ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- 9) ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.
- 10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL. THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

PERMANENT SEEDING NOTES APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED. SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES: 1) PREFERRED -- APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQUARE FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT.)

2) ACCEPTABLE -- APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31. SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05

LBS/1000 SQ FT) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW. MULCHING -- APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT) FOR ACHORING. MAINTENANCE -- INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED. <u>SEEDBED PREPARATION:</u> LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED. SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.). SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ FT). FOR THE PERIOD MOVEMBER 16 THRU FERRUARY 28 PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD. MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ FT) FOR ANCHORING. REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

SEQUENCE OF CONSTRUCTION

DAY 1-2 OBTAIN A GRADING PERMIT. DAY 2-3 CLEAR AND GRUB AREA FOR AND INSTALL STABILIZED CONSTRUCTION ENTRANCE (SCE).

DAY 3-4 CLEAR AND GRUB AREA FOR AND INSTALL GRASS SWALE AND STABILIZE IN ACCORDANCE WITH TEMPORARY SEEDING NOTES. CLEAR AND GRUB AREAS FOR REMAINING SEDIMENT CONTROL

DAY 6-10 INSTALL REMAINDER OF SEDIMENT CONTROL DEVICES AND STABILIZE IN ACCORDANCE WITH TEMPORARY SEEDING NOTES.

DAY 15-18 CLEAR AND GRUB REMAINDER OF SITE.

TAX MAP No. 43

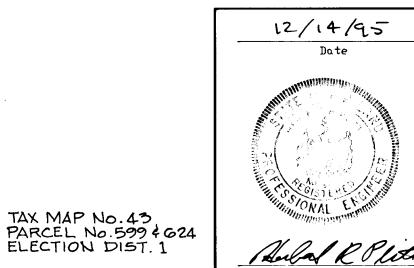
ELECTION DIST. 1

DAY 18-25 GRADE SITE.

DAY 25-30 INSTALL UTILITIES IE; WATER, SEWER, ETC. DAY 30-32 STABILIZE ALL SLOPES IN ACCORDANCE WITH PERMANENT

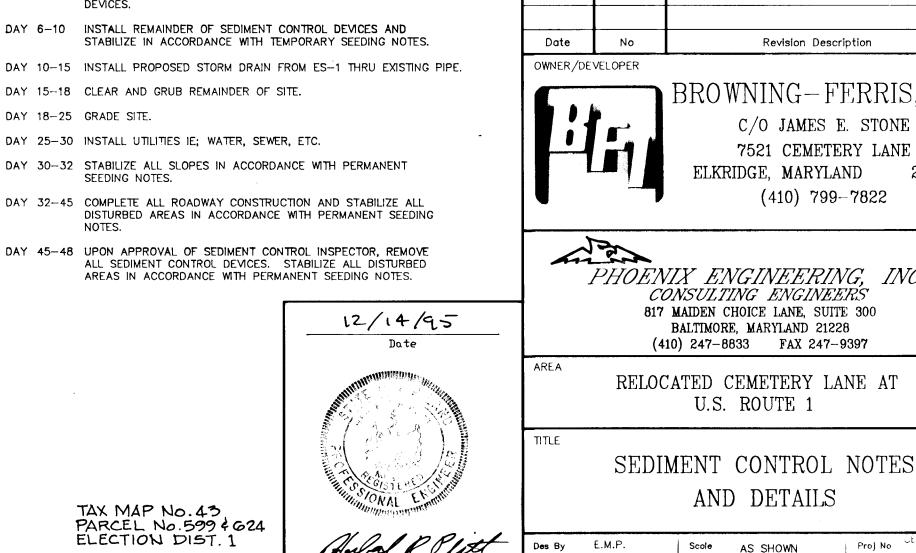
SEEDING NOTES. DAY 32-45 COMPLETE ALL ROADWAY CONSTRUCTION AND STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING

DAY 45-48 UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES. STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.



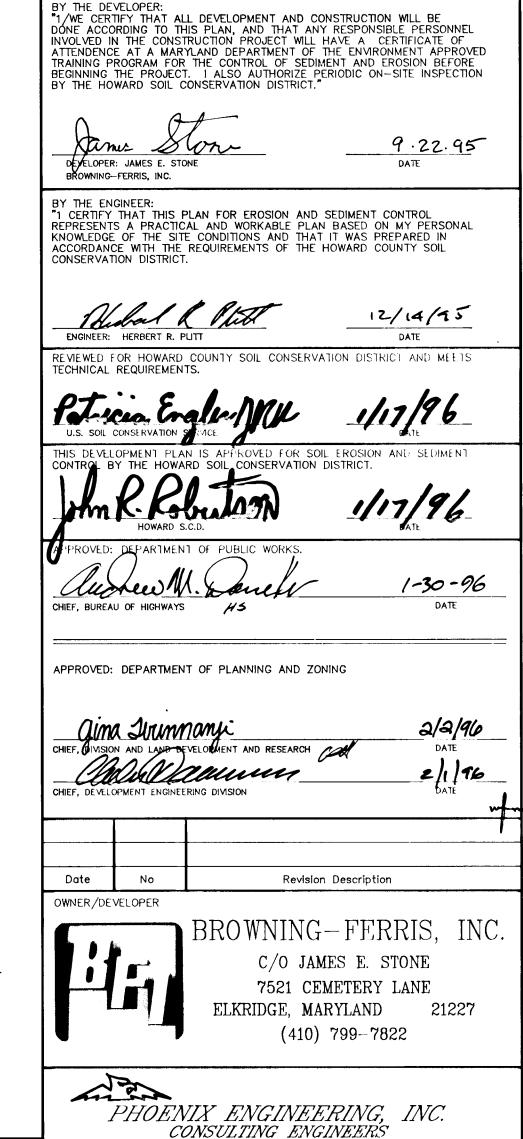
HERBERT R. PLITT

Professional Engr. No. 5407



Drn By D.R.B.

Chk By H.R.P.





Date DEC. 1995

Approved

Proj No 95--0050

DRAWING NO

 $\underline{6}$ \bigcirc \vdash $\underline{6}$